

REMARKS/ARGUMENTS

The Office Action mailed July 1, 2004 has been reviewed and carefully considered. Claims 1-6, 8, 10, 12, 14, and 16 are canceled. Claims 7, 9, and 15 have been amended and claim 18 is added. Claims 7, 9, 11, 13, 15, and 17-18 are pending in this application, with claim 7 being the only independent claim. Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested.

In the Office Action mailed July 1, 2004, the disclosure is objected as containing a typographical error. The specification has been amended in accordance with the Examiner's suggestion. Accordingly, the objection to the specification should now be withdrawn.

The specification is also amended to correct a translation error. Each occurrence of the term "entrained-bed" has been amended to state --entrained-flow--. The general rule in correcting errors is that if the error can be detected and corrected by one of ordinary skill in the art, then the applicant may amend the application to correct the error without introducing new matter. *See In re Oda*, 443 F.2d 1200, 170 USPQ 268, 272 (CCPA 1971). In reviewing the application for purposes of responding to the above-reference Office Action, applicant noted that the term "entrained-bed" was used to describe a type of gasifier. However, there are only three types of gasifiers: namely entrained flow, fixed-bed and fluidized-bed. Since all three types are listed in the specification, e.g., on page 1, lines 19-22, it would be obvious to one skilled in the art reading the specification that "entrained-bed" should be --entrained-flow--.

Claims 6-7 and 12-17 stand rejected under 35 U.S.C. §103 as unpatentable over FR 2,569,827 (Gudymov) in view of U.S. Patent No. 4,188,915 (Kummel).

Claims 8-11 stand rejected under 35 U.S.C. §103 as unpatentable over Gudymov and Kummel in further view of U.S. Patent No. 2,231,295 (Price).

Independent claim 6 is canceled. Independent claim 7 has been amended for clarification. Claim 7 now specifically recites that an appliance for gasification of residual and waste materials includes a "cooled reactor wall having the following structure from the outside inward: a pressure shell; a water-cooled cooling gap; and a cooling wall". Claim 7 further recites that the cooling wall includes "a metal wall with a ceramic protection layer of ceramic mass having high thermal conductivity arranged on a side of the cooling wall facing away from the cooling gap, wherein said metal wall includes pins penetrating into said protection layer for mechanically holding said metal wall onto said protection layer". With reference to the specification and Fig. 1, cooling wall 4 includes a metal wall with a ceramic mass 6 and a ceramic refractory lining 7. Support for the limitation "a thin protection layer of ceramic mass having high thermal conductivity arranged on a side of the cooling wall facing the cooling gap" is found in the original specification at page 7, lines 8-15, and in claim 3. Support for the "ceramic refractory lining" is found on page 7, line 5. Support for the pins for holding the metal wall to the protective layer is found on page 7, lines 2-5, and lines 12-13, and in Fig. 2.

It is respectfully submitted that Gudymov and Kummel fail to teach or suggest a cooling wall which includes "a metal wall with a thin protection layer of ceramic mass having high thermal conductivity arranged on a side of the cooling wall facing away from the cooling gap, wherein said metal wall includes pins penetrating into said protection layer for mechanically holding said metal wall onto said protection layer".

The title of the Gudymov is "Gekühlter Schirm als Innenauskleidung für die Reaktionsräume von Feuerungsanlagen" which is translated as a Cooled Screen (or Sheath) for an Internal Lining for the Reaction Space of Furnace Installations. Fig. 1 of Gudymov discloses two parallel plane sheets 1, 2, or pipe sections 3, 4 and 5, 6 which form a cooling space

therebetween are arranged on a "Stampfmasse" 19 which is translated as tamping clay or lining material. Accordingly, the element indicated by 19 is the refractory lining. Since Gudymov discloses that the entire apparatus is an internal lining, there is no teaching or suggestion that the outer shell 2, 4, 6 is a pressure shell of the furnace installation.

Assuming *arguendo* that the outer shell is a pressure shell, Gudymov fails to teach or suggest the claimed cooling wall having "a metal wall with a thin protection layer of ceramic mass having high thermal conductivity arranged on a side of the cooling wall facing away from the cooling gap". Gudymov shows only an inner shell 1, 3, 5 and a refractory lining 19.

Kummel fails to teach or suggest what Gudymov lacks. Kummel discloses that vertically extending tubes 37 interconnected by webs 38 form a wall surrounding a reaction chamber. An inner side or gas chamber side of the tubes 37 has a ceramic coating 36. A covering 40 of a ramming compound such as tamped clay is applied over the inside surface of wall 1. Since Kummel discloses that the tubes 37 are used to define the flow path of the cooling medium, Kummel fails to teach or suggest that a cooling gap is defined between a pressure shell and a cooling wall, as recited in independent claim 7. Furthermore, Kummel fails to teach or suggest that the tubes are anchored in the ceramic coating 36. Rather, Kummel discloses that the ceramic coating is plasma- or flame-sprayed to a thickness of 0.2 to 3.0 mm. Furthermore, Kummel discloses a retainer 39 arranged around each tube 37 for holding the compound 40 onto the tube 37. The retainer 39 obviates any requirement that the wall be pinned onto the ceramic coating because the retainer 39 holds the compound 40 on the coating 36.

In view of the above remarks, independent claim 7 is allowable over Gudymov in view of Kummel.

Price discloses a power plant boiler system in which a cooling conduit is formed around an engine cylinder. Price also fails to disclose teach or suggest "a metal wall with a thin protection layer of ceramic mass having high thermal conductivity arranged on a side of the cooling wall facing away from the cooling gap", as recited in independent claim 7. Accordingly, independent claim 7 is also allowable over Gudymov and Kummel in further view of Price.

Dependent claims 9, 11, 13, 15, and 17-18, each being dependent on independent claim 7, are deemed allowable for the same reasons expressed above with respect to independent claim 7.

The application is now deemed to be in condition for allowance and notice to that effect is solicited.

Respectfully submitted,

COHEN, PONTANI, LIEBERMAN & PAVANE

By



Thomas C. Pontani
Reg. No. 29,763
551 Fifth Avenue, Suite 1210
New York, New York 10176
(212) 687-2770

Dated: December 1, 2004